REMARKS

Summary

Claims 1, 5-6, 8, 11, and 19-28 were pending in the application. Claims 1, 5-6, 11 and 21-26 have been amended, claims 15-18 cancelled and claims 29-33 added. Claims 1, 5-6, 8, 11, and 19-33 are pending in the application.

Rejection of Claims under 35 U.S.C. §112, first paragraph

Claims 6, 8 and 21-28 were rejected under 35 U.S.C. §112, first paragraph failing to comply with the written description requirement as containing subject matter not described in the specification such as to reasonably convey to one skilled in the art that the inventor had possession of the claimed invention at the time the application was filed.

Specifically, the Office Action indicated that the specification does not contain support for a) "determining a third number that is a cryptographic signature over the first and second numbers" and b) "affixing the third number to either the product or the packaging associated with the product" in claim 6, and c) "reading a third number that is a public-key signature over the first and second numbers" and d) "utilizing a public-key cryptographic process and the first and second numbers to cryptographically verify the third number" in claim 21.

However, support for a) can be found in the specification, for example: "[t]he total information content of the RFID, which includes the unalterable, rarely-repeating information and the product specific information, is digitally signed via a standard public-key cryptographic process." (page 2, lines 19-21), and "[t]he manufacturer would then use a cryptographic process and a private key to generate signature 102 of the two stored numbers 201 and 202" (page 4, lines 11-12). Thus, it is clear that in the embodiment described the first number includes the unalterable, rarely-repeating information, the second number includes the product specific information, and the third number includes a signed version of the combination of the first and second numbers.

Similarly, support for b) can be found in the specification, for example: "[t]he signature is preferably printed on the item or packaging" (page 2, lines 21-22), "signature is printed onto the packaging" (page 3, line 15) and "at step 507, both the tag (containing the first two numbers) and the new number (i.e., the digital signature) are affixed to the product" (page 5, lines 26-27).

Further, support for c) and d) can be found can be found in the specification, for example: "In order to determine a product's authenticity, an individual utilizes the public key corresponding to the manufacturer and the total information content on the RFID, and verifies the signature" (page 2, lines 21-24), and "[i]n order to verify a products authenticity, a forgery detector (or reader) reads both anti-forgery RFID 101 (including values 201 and 202) and corresponding signature 102" (page 4, lines 24-26).

Accordingly, as the specification contains ample support for all of the elements of claims 6 and 21, Applicant respectfully traverses the rejection.

Rejection of Claims under 35 U.S.C. §112, second paragraph

Claims 6, 8 and 28 were rejected under 35 U.S.C. §112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicants regard as their invention. Specifically, the Office Action indicated that it is unclear to one of ordinary skill in the art to understand the technical meaning of the limitation "obtaining an anti-forgery RFID tag of a type that is pre-programmed with an unalterable first number, wherein the unalterable first number is rarely the same number as unalterable first numbers in other anti-forgery RFID tags of the same type" as the limitation is simply vague and ambiguous.

Applicant believes that this limitation is clear in light of MPEP 2173.02:

> "The examiner's focus … is whether the claim meets the threshold requirements of clarity and precision, not whether more suitable language or modes of expression are available. … [The Examiner] should allow claims which define the patentable subject matter with a reasonable degree of particularity and distinctness. Some latitude in the manner of expression and the aptness of terms should be permitted even though the claim language is not as precise as the examiner might desire…"

In particular, the limitation of a pre-programmed anti-forgery RFID tag is neither vague nor ambiguous. Nor is the limitation that the first number, with which the tag is programmed, is unalterable. Moreover, one of skill in the art would not have any problem discerning the metes and bound of the further limitation that the unalterable first number is rarely the same number as unalterable first numbers in other anti-forgery RFID tags of the same type, especially in light of the description on page 3, lines 24-27 of the specification.

Despite this, claim 6 has been amended for and the limitations rewritten. Accordingly, Applicant respectfully traverses the rejection.

If the next Office Action persists in this rejection, Applicant respectfully requests that the Examiner provide specifics as to why one of skill in the art would find the rejected limitation vague and ambiguous and provide suggestions to clarify the limitation, as indicated in MPEP 2173.02.

Rejection of Claims under 35 U.S.C. § 103(a)

Claims 1, 5-6, 8, 11, and 19-28 (indicated as claims 1, 5-11 and 19-20) were rejected under 35 U.S.C. § 103(a) as being unpatentable over Halperin et al. (U.S. Patent 6,226,619; "Halperin") in view of Coppersmith et al., (U.S. Patent 6,069,955; "Coppersmith").

Claim 1 recites a method for determining if an item is fraudulent. The method comprises, *inter alia*, that a public-key cryptographic process is used to decide whether a number printed on the item/packaging is a public-key signature of a number in an RFID tag associated with the item/packaging. The authenticity of the item is then determined as a result of this decision. In other words, if the printed number matches the public-key signature of the RFID number, the authenticity is confirmed. Thus, it is clear that the public-key cryptographic process operates on the RFID contents and the result (which is now signed) is compared with the printed number.

The Office Action indicates that col. 5, lines 55-65 of Halperin discloses a number in an RFID tag and a number on a label. It is clear from this paragraph, as well as throughout Halperin, that the number on the RFID tag is a signed serial number of the label (note that a signed number is called an encrypted number in the references). Thus, the method of Halperin is the complete opposite of the method of claim 1, in which the RFID tag would contain the serial number and the label contain the signed serial number.

The Office Action turns to Coppersmith, stating that it discloses using a public-key cryptographic process and the RFID number to cryptographically verify the printed number. However, this is not the case. To begin, Coppersmith is entirely directed to providing two labels on an item – a visible label and a hidden label. Both labels contain the same serial number. However, unlike either the method recited in claim 1 or Halperin, both labels in Coppersmith are signed and moreover are signed using different keys. As described in Coppersmith, the hidden label (containing one signed version of the serial number) is to be used by the purchaser to authenticate the item and is thus only accessible once the item is purchased while the visible label (containing the other signed version of the serial number) is to be used at the point of

purchase. Moreover, despite the Office Action (in item 18) insisting that the abstract of Coppersmith discloses use of an RFID tag, Coppersmith never discloses the use of an RFID tag, primarily describing multiple labels (or a label and the use of a smart card or diskette for the consumer to use).

The techniques in Halperin and Coppersmith are thus wholly different. It is clear that the technique disclosed in Halperin is primarily directed towards verification between signed and unsigned serial numbers at the point of purchase. Coppersmith, on the other hand is directed to use of multiple differently signed labels at different times - only one label (the visible label) is used at the point of purchase while the other label (the hidden label) is used later by the customer as an added check of authentication.

Even if a reason existed to combine these disparate techniques, the combination would not result in the method of claim 1. Assuming, *arguendo*, that Halperin and Coppersmith could be combined, the result would be four separate numbers: an RFID tag with a signed serial number and a visible label with the unsigned serial number as in Halperin and two more labels, one visible and one hidden, both containing differently signed versions of the serial number. This is relatively a large amount of serial numbers to plaster on an item. Furthermore, it is unclear why one of skill in the art would be motivated to combine the two references to result in an RFID with a signed serial number and multiple labels, one hidden, two visible, two with different signed versions (one perhaps the same as the RFID?) of the serial number and one with an unsigned version of the serial number. Moreover, it is clear that the combination still does not include an unsigned serial number in the RFID.

For at least these reasons, none of the references anticipate or disclose the method recited in claim 1. Thus, claim 1 is patentable over the cited references.

For at least similar reasons, none of the references anticipate or disclose the method recited in claims 6, 11 or 21. Thus, claims 6, 11 or 21 are patentable over the cited references.

Claims 5, 8, 19-20 and 22-29 are dependent on an allowable base claim and thus themselves are allowable without more.

Conclusion

Applicant respectfully requests that a timely Notice of Allowance be issued in this case and such action is earnestly solicited. Should the Examiner have any questions, comments, or suggestions, the Examiner is invited to contact the Applicant's attorney or agent at the telephone number indicated below. Applicant herein petitions for any extension of time necessary for the filing of this response. Please charge any fees that may be due for this filing to Deposit Account 502117, Motorola, Inc.

Respectfully submitted,

SEND CORRESPONDENCE TO:

By: /Anthony P. Curtis/

Motorola, Inc.
1303 East Algonquin Road
IL01/3rd Floor
Schaumburg, IL 60196
Customer Number: 22917

Anthony Curtis
Attorney of Record
Reg. No.: 46,193

Telephone:847-576-1974
Fax No.: 847-576-0721
Email: acurtis@motorola.com